



BILL RICHARDSON
Governor
DIANE DENISH
Lieutenant

NEW MEXICO
ENVIRONMENT DEPARTMENT

Ground Water Quality Bureau

Harold Runnels Building
1190 St. Francis Drive, P.O. Box 5469
Santa Fe, New Mexico 87502-6110
Phone (505) 827-2918 Fax (505) 827-2965
www.nmenv.state.nm.us



RON CURRY
Secretary
SARAH COTTRELL
Deputy Secretary

CERTIFIED MAIL-RETURN RECEIPT REQUESTED

April 1, 2010

Mr. Timothy E. Eastep, Manager
Environment, Land & Water Department
Freeport McMoRan Copper & Gold Inc.
Chino Mines Company
P.O. Box 7
Hurley, New Mexico 88043

RECEIVED
2010 APR - 8 AM 9:52
SUPERFUND DIV.
REMEDIAL BRANCH
(6SF-R)

RE: Comments on the Year 1 Monitoring Report
Smelter and Tailing Soils Investigation Unit (S/TSIU)
Chino Administrative Order on Consent (AOC)

Dear Mr. Eastep:

The Ground Water Quality Bureau of the New Mexico Environment Department (NMED) received the above referenced Report on February 16, 2010. NMED has completed a review of the document and has compiled the following comments that must be addressed before NMED will consider approval of the Report. Chino Mines Company shall submit a revised Report within fifteen (15) days of receipt of this letter as per the AOC, Article IX, F; an extension may be requested as per Article XIV, A.

General Comments:

1. Please explain why no cupric ion data was included considering Chino agreed to include that data in a response to the January 14, 2008 NMED comment letter, dated February 1, 2008 (see "Comment #2", "Chino Response" of that letter).
2. Please explain why no vegetation bioaccumulation data was included considering Chino agreed to include that data in a response to the January 14, 2008 NMED comment letter, dated February 1, 2008 (see "Comment #3", "Chino Response" of that letter).



668210

3. Please explain the status of any additional soil pH data that may have been collected to support the potential long-term impacts of the “white rain” event as discussed during our September 2009 conference call (Action Item 3).
4. The initial vegetation survey cannot be compared directly to the vegetation success criteria established for the Closure/Closeout Plan (CCP), Permit NO. GR009RE, Appendix C and Interim Technical Standards for Revegetation Success (Daniel B. Stevens & Associates 1999). Chino should conduct the future vegetation surveys to compare directly to the criteria as established. (See response to Comment 26 of Chino letter dated February 1, 2008.)
5. Please record the reference plot soil chemistry as well as the vegetation data submitted.
6. Please add a section describing the organic matter amendment as per the Amendment Study Work Plan, Section 4.4, pages 4-3 to 4-4, paragraphs four (4) and five (5).

Specific Comments:

1. Section 1.1, page 2: please revise the first full sentence at top of page to read “The *partial* AOC Investigation Area”
2. Section 1.1, page 2: please revise the first sentence of the first full paragraph to read “The ~~Hurley Soil Smelter~~ and Tailing Area Impacted Soils IUs have”
3. Section 1.1, page 2: please revise the second sentence of the first full paragraph to read “The STSIU includes *property surrounding* the former”
4. Section 1.2, page 2: please revise the first sentence of the paragraph beginning with “Results of this study” to read “Results ... in areas with copper concentrations ranging from 2,700 to below 5,000 mg/kg.”
5. Section 1.2, page 3: please revise the second sentence of the paragraph beginning “Results of this study” to read “This concentration ... but may pose risk to ~~local populations of small ground-feeding birds~~ *ecological receptors*.”
6. Section 2, page 3: please review the third bullet to determine if the third “70%” should actually be “80%”.
7. Section 5: please add a discussion of the ammonia results, which increased in the East A and North East plots, and potential for decreased pH in the plots amended with manure.
8. Section 5: please provide a more thorough discussion of the variability observed in the total and soluble copper results within the plots (i.e., East A increased more than 3-fold in total copper and 10-fold in soluble copper between 12/08 and 10/09).
9. Section 5.1.1, page 8: the first sentence refers to six surface soil samples collected, but Table 3 only indicates five samples were collected. Please review and revise as necessary.

10. Section 5.1.1, page 9: please add a reference to Table 3 after "October 2009" in the first sentence.
11. Section 5.1.1, page 9: the reference to Table 5 in the last sentence of the first paragraph should be revised to read Table 4.
12. Section 5.3.1, page 13: the last sentence of the first paragraph refers to a pH of 6.26 but should be revised to read 6.16, as per Table 3.
13. Section 5.4.1, page 15: the second sentence refers to six surface soil samples collected, but Table 3 only indicates five samples were collected. Please review and revise as necessary.
14. Table 3: please revise the last column heading to read "Carbon:Nitrogen Ratio (X:1)".
15. Table 5: please correct the date of the second "Canopy Cover" section.
16. Table 6: please provide a discussion of the observed changes in percent cover (i.e., no data West Plot Oct-09, North Plot decline to 38% and East Reference Plot decline to 38%)

Data that may have to be collected (i.e., cupric ion, pH and vegetation) may be included in the Year 2 Monitoring Report.

If you have any questions, please contact me at 388-1934.

Sincerely,



Phil Harrigan, Chino AOC Project Manager
Mining Environmental Compliance Section
Ground Water Quality Bureau
New Mexico Environment Department
Silver City Field Office

cc: Mary Ann Menetrey, NMED
Jerry Schoeppner, NMED
Mark Purcell, USEPA
Mark Lewis, Formation Environmental (via Email)
Chris Eustice, MMD (via email)